

ASSIGNMENT 5

Textbook Assignment: "M61A1 Gun Installation," chapter 6, pages 6-1 through 6-20; and "Ammunition Loading," chapter 7, pages 7-1 through 7-16.

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| <p>5-1. An M61A1 automatic gun can be internally mounted in which of the following aircraft?</p> <ol style="list-style-type: none">1. P-32. F-14 only3. F/A-18 only4. F-14 and F/A-18 <p>5-2. An M61A1 automatic gun is (a) driven and (b) controlled by what means?</p> <ol style="list-style-type: none">1. (a) Electrically
(b) pneumatically2. (A) Hydraulically
(b) electrically3. (A) Electrically
(b) electrically4. (A) Hydraulically
(b) pneumatically <p>5-3. As installed in Navy aircraft, an M61A1 automatic gun has what pilot-selectable firing rate of (a) GUN HIGH and (b) GUN LOW rounds per minute?</p> <ol style="list-style-type: none">1. (a) 6,000 (b) 4,0002. (a) 7,000 (b) 4,0003. (a) 7,000 (b) 5,0004. (a) 8,000 (b) 5,000 <p>5-4. What components are the primary parts of an M61A1 automatic gun?</p> <ol style="list-style-type: none">1. The barrels, housing assembly, and muzzle clamp assembly2. The housing assembly, muzzle clamp assembly, and clearing sector assembly3. The barrels, rotor assembly, and housing assembly4. The muzzle clamp assembly, rotor assembly. and barrels <p>5-5. What component of an M61A1 automatic gun restrains individual barrel movement during firing?</p> <ol style="list-style-type: none">1. The guide bar2. The recoil adapter3. The muzzle clamp assembly4. The mid-barrel clamp assembly <p>5-6. What means are used to secure the gun barrels to the stub rotor of an M61A1 automatic gun?</p> <ol style="list-style-type: none">1. Pipe threads2. Standard threads3. Interrupted locking lugs4. Barrel retaining safety pins | <p>5-7. What components are mounted on the bearing retainer and provide the front mounting for an M61A1 automatic gun?</p> <ol style="list-style-type: none">1. The recoil adapters2. The housing assembly3. The forward yoke assembly4. The rotor housing assembly <p>5-8. On an M61A1 automatic gun, what components support the breech-bolt assemblies and provide a guide for the forward and backward movement of the bolt?</p> <ol style="list-style-type: none">1. The elliptical tracks2. The main cam paths3. The rotor tracks4. The oval cam paths <p>5-9. To install or remove the bolt assembly of an M61A1 automatic gun, what component should you remove?</p> <ol style="list-style-type: none">1. The locking cam2. The unlocking cam3. The housing cover4. The lubricator assembly <p>5-10. What type of lubricant should you use in the lubricator assembly of an M61A1 automatic gun?</p> <ol style="list-style-type: none">1. DOD-L-853362. MIL-L-560003. VV-L-7004. VV-L-800 <p>5-11. What are the two distinct cycles of M61A1 automatic gun operation?</p> <ol style="list-style-type: none">1. Firing and clearing2. Loading and unloading3. Feeding and extracting4. Clearing and loading <p>5-12. As viewed from the rear, in what direction does the rotor move when an M61A1 automatic gun is operating?</p> <ol style="list-style-type: none">1. Clockwise2. Counterclockwise3. Vertically4. Horizontally |
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- 5-13. On an M61A1 automatic gun, what cam moves the firing pin forward against the primer of the round?
1. The locking cam
 2. The contact cam
 3. The firing pin cam
 4. The unlocking cam
- 5-14. What component of an M61A1 automatic gun ejects the empty case from the gun?
1. The ejector
 2. The guide bar
 3. The extractor lip
 4. The ejection cam
- 5-15. On an M61A1 automatic gun, what sequence of actions is performed by the breech-bolt assembly during one full firing cycle?
1. Feed, chamber, ram and lock, fire, unlock, extract, and eject
 2. Feed, chamber, lock and fire, unlock, extract, and eject
 3. Ram and chamber, lock and fire, unlock, extract, and eject
 4. Load and lock, fire, unlock, extract, and eject
- 5-16. On an M61A1 automatic gun, the clearing cycle begins when what event occurs?
1. When the pilot initiates the clearing switch
 2. When the clearing solenoid is deactivated
 3. When the clearing solenoid is energized
 4. When the spent case reaches the rear of the gun
- 5-17. On an M61A1 automatic gun, the bolt locking block is forced upward by which of the following components?
1. The buffer
 2. The electrical solenoid
 3. The coil springs
 4. The leaf springs
- 5-18. A drum unit assembly consists of the drum unit and what other major parts?
1. The entrance unit, scoop disk, and exit cover
 2. The entrance cover, transfer unit, and exit cover
 3. The entrance unit, scoop disk, and exit unit
 4. The entrance cover, scoop disk, and exit cover
- 5-19. In a drum unit, ammunition rounds are moved along the length of the partitions by what means?
1. The entrance cover
 2. The scoop disk
 3. The rotation of the outer drum
 4. The rotation of the double-lead helix
- 5-20. What component(s) control(s) the position of the rounds as they are passed from the entrance cover to the scoop disk?
1. The retainer partitions
 2. The inner drum helix
 3. The entrance unit
 4. The scoop disk extensions
- 5-21. What component provides rotating support for an inner drum helix?
1. An exit cover
 2. A scoop disk
 3. An entrance cover
 4. An inner drum adapter
- 5-22. What component contains a last-round switch?
1. The entrance unit
 2. The entrance cover
 3. The exit unit
 4. The exit cover
- 5-23. What component prevents expended rounds from being fed into the M61A1 automatic gun?
1. The first-round switch
 2. The last-round switch
 3. The projectile sensor
 4. The empty case sensor
- 5-24. Live rounds or expended cases are removed from the conveyer elements and placed in the entrance cover retainer partitions by what component?
1. The exit unit
 2. The scoop disk
 3. The bypass unit
 4. The entrance unit
- 5-25. A transfer unit is attached to an M61A1 automatic gun housing by what means?
1. Bolts
 2. Safety wires
 3. Quick-release pins
 4. Quick-disconnect fittings

- 5-26. An adapter assembly is bolted directly to what component?
1. The gun housing
 2. The rear buffer
 3. The forward buffer
 4. The transfer unit
- 5-27. The conveyer elements pass along a path from the entrance unit to the exit unit. What chute provides this path?
1. The feed chute
 2. The bypass chute
 3. The return chute
 4. The unload chute
- 5-28. The conveyer transports expended cases or unfired rounds along a path from the transfer unit to the entrance unit. What chute provides this path?
1. The return chute
 2. The unload chute
 3. The bypass chute
 4. The feed chute
- 5-29. The conveyer transports live rounds or expended cases along a path from the exit unit to the adapter assembly. What chute provides this path?
1. The feed chute
 2. The return chute
 3. The unload chute
 4. The bypass chute
- 5-30. Conveyer elements are joined together by what type of fasteners?
1. Nuts and bolts
 2. Sheet metal screws
 3. Quick-release pins
 4. Removable hinge pins
- 5-31. The mechanical drive unit in an F-14 aircraft has what total number of output shafts?
1. Five
 2. Two
 3. Three
 4. Four
- 5-32. The mechanical drive unit in an F/A-18 aircraft has what total number of output shafts?
1. One
 2. Two
 3. Three
 4. Four
- 5-33. A gun gas purge system is used for what purpose?
1. To provide gas to operate the gun
 2. To cool the gun barrels only
 3. To purge gas from the gun compartment only
 4. To cool the gun barrels and purge gas from the gun compartment
- 5-34. The air required to operate the gun gas purge system in an F/A-18 aircraft is provided by what air source?
1. The engine bleed air only
 2. The ram air scavenge door only
 3. The engine bleed air and the ram air scavenge door
 4. The environmental cooling system
- 5-35. In an F/A-18 aircraft, the M61A1 automatic gun system can be operated in what computer mode?
1. A/A only
 2. A/G only
 3. CCIP only
 4. A/A, A/G, or CCIP
- 5-36. In an F/A-18 aircraft, the ammunition handling system accommodates what maximum number of rounds ?
1. 578 rounds
 2. 676 rounds
 3. 872 rounds
 4. 1,019 rounds
- 5-37. In an F/A-18 aircraft, what component limits the total number of rounds the pilot can fire through the M61A1 automatic gun?
1. The rounds limiter
 2. The rounds counter
 3. The digital computer
 4. The last round switch
- 5-38. In an F/A-18 aircraft, what component is used to manually clear the M61A1 automatic gun?
1. The clearing section clamp
 2. The clearing sector holdback
 3. The clearing sector retainer
 4. The clearing solenoid

- 5-39. In an F/A-18 aircraft, the M61A1 automatic gun system should be handled in what manner?
1. As live ammunition
 2. As two palletized units
 3. As a single palletized unit
 4. As a separate major component
- 5-40. In an F-14 aircraft, the M61A1 automatic gun system can be operated in what mode?
1. Air-to-ground only
 2. Air-to-air only
 3. Air combat maneuver only
 4. Air-to-ground, air-to-air, or air combat maneuver
- 5-41. In an F-14 aircraft, the M61A1 automatic gun system accommodates what maximum number of rounds?
1. 576 rounds
 2. 676 rounds
 3. 896 rounds
 4. 966 rounds
- 5-42. In an F-14 aircraft, what component(s) should you use to manually clear the M61A1 automatic gun?
1. The clearing sector clamp assembly
 2. The safety pin only
 3. The clearing sector holdback assembly only
 4. The safety pin and clearing sector holdback assembly
- 5-43. When removing a gun component for sudden stoppage, you should be especially cautious because of which of the following potential hazards?
1. Loose propellant powder from ruptured cartridge cases
 2. Parts under pressure
 3. Hot hydraulic fluid
 4. Energized electrical wires
- 5-44. An M61A1 automatic gun must be sent to a depot-level maintenance activity under which of the following conditions?
1. When major repair is required
 2. When an alteration is authorized
 3. When 120,000 rounds have been expended
 4. Each of the above
- 5-45. Which of the following gun maintenance procedures should be accomplished during scheduled maintenance?
1. Lubrication
 2. Normal disassembly and parts replacement
 3. A functional check of the components based on the round interval
 4. Each of the above
- 5-46. Scheduled maintenance for an M61A1 automatic gun handling and drive system should be performed after what maximum number of rounds have been fired?
1. 15,000 rounds
 2. 20,000 rounds
 3. 30,000 rounds
 4. 100,000 rounds
- 5-47. You should make sure that the primer buttons of electrically primed ammunition do NOT contact your body to prevent which of the following potential hazards?
1. An electrical shock
 2. An explosion from static electricity
 3. A skin rash
 4. A skin burn
- 5-48. The LALS consists of the loader ammunition transporter, drum loader and unloader assemblies, and what other component?
1. The ammunition linking assembly
 2. The conveyor system
 3. The transporter assembly
 4. The ammunition delinking assembly
- 5-49. The LALS can handle what total number of ammunition rounds?
1. 576 rounds
 2. 676 rounds
 3. 1,019 rounds
 4. 1,400 rounds
- 5-50. The LALS transporter has four hinge plates and four quick-release pins that are used to lock the transporter into what skid?
1. Aero 12
 2. MHU-191
 3. Mk 7
 4. Mk 14

- 5-51. The LALS ammunition drum consists of two scoop disk assemblies, two cover assemblies, and what other component?
1. An inner drum
 2. An exit unit
 3. An entrance unit
 4. An inner drum bypass
- 5-52. The LALS rounds-remaining indicator is located on what component?
1. The outer drum
 2. The drum cover
 3. The exit unit
 4. The entrance unit
- 5-53. The LALS drive assembly is mounted on brackets that are located on what component?
1. The drum loader
 2. The entrance unit
 3. The exit drum cover
 4. The entrance drum cover
- 5-54. The LALS drum loader assembly consists of which of the following components ?
1. One load tray, one belt of elements, and one chute
 2. One load tray, one belt of elements, and two chutes
 3. One load tray, two belts of elements, and two chutes
 4. Two load trays, two belts of and two chutes
- 5-55. What LALS assembly has a hole for spent cases to drop through?
1. The drum loader assembly
 2. The drum unload assembly
 3. The conveyer assembly
 4. The exit unit assembly
- 5-56. Which of the following LALS assemblies is/are part of the conveyor system?
1. The entrance unit assembly only
 2. The exit unit assembly only
 3. The chute support assembly only
 4. The entrance unit assembly, exit unit assembly, and chute support assembly
- 5-57. Rounds from the transporter are removed and placed into the elements by what assembly?
1. The entrance unit assembly
 2. The exit cover assembly
 3. The exit unit assembly
 4. The entrance cover assembly
- 5-58. What LALS assembly transfers the rounds coming from the exit unit assembly to the aircraft system?
1. The adapter assembly
 2. The entrance unit assembly
 3. The exit unit assembly
 4. The interface unit assembly
- 5-59. Spent cases or cleared rounds are removed from the elements and placed on the transporter by what assembly?
1. The entrance unit assembly
 2. The exit unit assembly
 3. The entrance cover assembly
 4. The exit cover assembly
- 5-60. A LALS is designed to operate in which of the following modes?
1. Bypass only
 2. Loading/downloading aircraft gun systems only
 3. Loading/downloading the transponder
 4. Bypass, loading/downloading aircraft gun systems, or loading/downloading the transponder
- 5-61. The loading or unloading of a LALS transponder should be conducted in a RADHAZ-safe area for which of the following reasons?
1. To prevent the transporter from overheating
 2. To prevent the primers from firing
 3. To prevent the gun from being accidentally fired
 4. To prevent the casings from overheating
- 5-62. When loading or simultaneously loading/unloading, what device should you use to drive the LALS transporter?
1. A handcrank
 2. A hydraulic drive unit
 3. A load unit assembly
 4. An electrical drive unit
- 5-63. When loading or downloading an aircraft gun system, you should make sure the conveyor system is located on what component?
1. The transporter
 2. The ammunition chute
 3. The interface unit assembly
 4. The timed exit unit assembly

5-64. When first connecting the interface unit to the aircraft adapter, you should make sure the interface unit is in what position?

1. The forward position
2. The rearward position
3. The bypass position
4. The load position

5-65. For information pertaining to unscheduled maintenance procedures for the LALS, you should refer to what NAVAIR publication?

1. 22-LAS-07
2. 19-01-125
3. 17-15-50
4. 03-25GAC-5